



100 GROVE ST. | WORCESTER, MA 01605

September 29, 2021

Grafton Zoning Board of Appeals  
Grafton Municipal Center  
30 Providence Road  
Grafton, MA 01519

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gravesengineering.com

**Subject: Elmrock Estates Subdivision in Grafton, Massachusetts  
Updated Engineer's Opinion Construction Cost Estimates**

Dear Board Members:

Per the request of the Applicant and the Zoning Board of Appeals, Graves Engineering, Inc. (GEI) has calculated an updated "work remaining" construction cost estimate for the Elmrock Estates Subdivision in Grafton, Massachusetts. This estimate supersedes our previous estimate dated June 9, 2021.

Please find attached the point-by-point totals of the "work remaining" and "100% cost-to-construct" cost estimates with the following assumptions:

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- Drill holes not set in stone walls yet: Drainage & Access Easement C – the eastern-most bound; Drainage & Access Easement A – on the lot line between Lots 1 and 3 the eastern most bound.
- There has been a 20% administration and contingency added to the “work remaining” estimate for inspections, contract administration and inflation.

The purpose of our construction cost estimates is to provide the Grafton Zoning Board of Appeals with an “engineer’s opinion” of the possible construction value for the project. Our estimates are based upon typical municipally-bid public works projects subject to state wage rates. We use state wage rates as the municipality will be required to pay prevailing state wage rates should they ultimately become responsible for completing the project. The rates indicated within this estimate reflect current market conditions.

In addition, the construction estimate should not be construed to be a final punch list of items that are not complete. At each drawdown requested by the developer, individual line items will be evaluated for completeness, unit prices for each item revised to reflect the current cost of work, and additional items added or deleted from the estimate, if needed. Streets and applicable amenities are not considered complete until a determination is made by the Grafton Zoning Board of Appeals.

1. Surety =  $\$17,340 + 0.2 * (\$1,617,266 - \$17,340) = \$337,325$ .  
Say \$337,000 (rounded).
2. We understand that final determination of the surety amount is at the discretion of the approving authority.

If you have any questions or comments concerning these cost estimates, please feel free to contact our office.

SITE DEVELOPMENT/SUBDIVISION CONSTRUCTION BUDGET						
<b>PROJECT: ELMROCK ESTATES</b>						
<b>DEBORAH JEAN DRIVE STATION 0+00 TO 12+25.29</b>						
<b>DATE: September 29, 2021</b>						
<b>Budgets of work for the entire project and for work yet to be completed.</b>						

			100% COST ESTIMATE		CONSTRUCTION	
			QUANTITY	VALUE	REMAIN'G QUANTITY	09/29/21 VALUE
	UNITS	\$/UNIT				
Drain Manholes	Each	\$4,000.00	19	\$76,000.00	0	\$0.00
Drain Invert (Concrete or Brick)	Each	\$300.00	19	\$5,700.00	0	\$0.00
Catch Basins	Each	\$3,700.00	6	\$22,200.00	0	\$0.00
Catch Basin Frame & Grate	Each	\$900.00	6	\$5,400.00	0	\$0.00
Drain Manhole Rim & Cover (24")	Each	\$825.00	19	\$15,675.00	0	\$0.00
Double Catch Basins	Each	\$3,900.00	12	\$46,800.00	0	\$0.00
Double Catch Basins Frame & Grate	Each	\$1,500.00	12	\$18,000		

			100% COST ESTIMATE		CONSTRUCTION	
	UNITS	\$/UNIT	QUANTITY	VALUE	REMAIN'G QUANTITY	09/29/21 VALUE
<b>ELECTRIC COMMUNICATIONS</b>						
Electrical/CATV/Tel Conduit	Lin.Ft.	\$60.00	1,330	\$79,800.00	0	\$0.00
<b>MISCELLANEOUS</b>						
Bounds, Granite (Roadway)	Each	\$550.00	14	\$7,700.00	2	\$1,100.00
Bounds, Granite (Easements)	Each	\$550.00	44	\$24,200.00	5	\$2,750.00
Acceptance Plans	Sheet	\$1,500.00	2	\$3,000.00	2	\$3,000.00
As Built Plans	Sheet	\$1,900.00	4	\$7,600.00	4	\$7,600.00